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CEREAL AND FORAGE INSECT INVESTIGATIONS

W. R. Walton, Entomologist in Charge

The principal activities in the corn borer investigations in New York State will be transferred to Silver Creek, that State, at an early date, with H. N. Bartley in charge for the present. J. H. Harman has been placed in charge of the work near Schenectady, and will maintain a small force at that point for the purpose of studying the insect in that vicinity.

C. M. Packard and B. G. Thompson have submitted a brief manuscript which will be published as Department Circular 172, dealing with the control of the range crane-fly, Tipula simplex. The presentation of this paper is due principally to the work of Mr. Thompson, who recently discovered that the poisoned bran bait is a specific remedy for the insects, which come to the surface of the soil at night in order to feed. This discovery has already been announced in the News Letter of the California Department of Agriculture.

Herbert D. Smith, a graduate of the Massachusetts Agricultural College, formerly connected with the corn borer work, has been appointed scientific assistant and assigned to the Hessian fly work at Carlisle, Pa.

E. V. Walter, of the Tempe, Ariz., station, recently visited Washington for the purpose of consultation and to study Lepidoptera collected in the Salt River Valley. Mr. Walter's collection contributed several species and at least one new genus to the Museum collection.

C. H. Gable, J. R. Horton, and Herbert Walkden recently investigated the green-bug situation in Oklahoma and Texas, and reported on February 24 that although the situation in northern Texas seems serious, no general invasion is yet apparent in Oklahoma, and that most of the reports of the presence of Toxoptera in the latter State proved to be Aphis avenae, although an invasion of Toxoptera in that State is to be expected if favorable weather conditions should continue.

L. H. Worthley and D. J. Caffrey, of the corn borer investigations, visited Washington recently for the purpose of consultation with regard to the plans for the season's work.

C. N. Ainslie and G. G. Ainslie recently have constructed a photographic stand for laboratory use, at a nominal cost, which is giving good satisfaction. They will be glad to correspond with any members of the Bureau who desire to secure information with regard to it.

C. F. Turner, formerly in charge of the corn borer investigations at Schenectady, N. Y., has resigned from the entomological service, in order to be near his family at Memphis, Tenn., where Mr. Turner has decided to engage in the business of commercial fruit-growing. Mr. Turner's separation from the service is greatly regretted, as his connection with cereal and forage insect work was an extended and successful one.

FOREST INSECT INVESTIGATIONS

A. D. Hopkins, Forest Entomologist in Charge

It would be of great assistance if field men of the Bureau who chance to see termites or white ants flying or swarming would collect any peculiar forms found with the winged adults as they issue from the ground or from wood. Such forms would be partially pigmented or have distorted wings or wing pads. Any notes made on the actions of these forms are especially desirable, i.e., as to whether they seek shelter in cracks or enter the ground, etc. Specimens placed in 70 per cent alcohol would be gratefully received by T. E. Snyder of this office.

BEE CULTURE INVESTIGATIONS

E. F. Phillips, Apiculturist in Charge

G. H. Cale has resigned to take charge of the apiaries of Dadant and Sons, Hamilton, Ill.

L. R. Watson has resigned to take charge of the beekeeping work at the A. and M. College, College Station, Tex., under the supervision of Dr. M. C. Tanquary.

E. L. Sechrist, formerly in the Bureau, has been appointed for work in Washington.

Extension short courses in beekeeping were recently held in cooperation with the Extension Divisions of Ohio and New York.

TRUCK CROP INSECT INVESTIGATIONS

F. H. Chittenden, Entomologist in Charge

C. F. Stahl, working at Riverside, Calif., against the curly-top leafhopper, reports that material progress is being made in the selection of resistant types of sugar beets. A large series of mother beets have been retained in cold storage during the past season and a considerable supply of seed grown last year will be available for the resistance tests.

Some very promising types have been selected and are being planted in isolated places throughout Riverside County in order that the necessity to use bags on the seed stalks may be obviated. Each plant of the resistant strains is separately inoculated with curly-top in order that there may be assurance that all are relatively immune.

In the Baker-Charlton (Florida and Georgia) sweet-potato weevil project conditions have been unusually favorable for securing an early spring cleanup and the work has been completed in record time. A material advance in cooperation shown has been noted during the present winter and it is believed that much greater progress will be made during the coming year than heretofore. About 1,250,000 draws from weevil-free bed potatoes will be secured from the varieties which have been bedded, and conditions appear unusually favorable for early and abundant production. Within a short time the seasonal work on wild food plant eradication will be resumed at Daytona, Fla., where a series of experiments, with special reference to the seaside morning-glory, is under way. Many of these appear very promising.

K. L. Cockerham, in charge of sweet-potato weevil eradication for the State of Mississippi, appears as co-author with T. E. Hand, of the Mississippi Agricultural Experiment Station, of a publication in the Rural Science Series on the sweet potato. This publication treats of the production, storage, and marketing of sweet potatoes, with separate chapters on insect and fungus pests.

C. H. Popenoe has recently returned from a trip in the South, during which he visited truck-crop and sweet-potato weevil stations in Texas, Louisiana, Mississippi, and Florida.

L. G. Gentner, who has been for the past three years connected with this office and more recently has been in charge of the potato station at Waupaca, Wis., resigned on February 28 to become an instructor in entomology at the Michigan Agriculutral College.

Roy E. Campbell, scientific assistant in truck-crop insect investigations at Alhambra, Calif., has recently issued a publication entitled "Nicotine Sulphate in a Dust Carrier Against Truck-Crop Insects" as Department Circular 154.

LIBRARY

Mabel Colcord, Librarian

New Books

Cook. M. T. College botany; structure, physiology and economics of plants. 329 p., front., illus. Philadelphia and London, J. B Lippincott Co., 1920.

Dadant, C. P. Dadant system of beekeeping. 115 p., illus. Hamilton, Ill., Amer. Bee Journal, 1920.

Eastman Kodak Co., Rochester, N. Y., Photomicrography. 5th ed. 36 p., illus., diagra. Rochester, N. Y., 1919.

Hand, T. E., and Cockerham, K. L. The sweet potato - a handbook for the practical grower. 261 p., illus. (Rural Science Series.) New York, The Macmillan Company, 1921.
Insects affecting sweet potato, p. 137-154.
Diseases of the sweet potato, p. 155-169.
Insecticides, fungicides and spraying machinery, p. 170-176.

Hardy, M. E. The geography of plants. 327 p., illus., maps. Oxford, Clarendon Press, 1920.

Hess, Richard, and R. Beck. Der forstschutz.....4aufl. 2 vols., illus., plates. Leipzig und Berlin, Druck und Verlag von G. B. Teubner, 1914-16.

Hilger, Adam, ltd., pub. Optical methods in control and research laboratories. 30 p., illus. London, 1920.
Bibliographies and bibliographical footnotes interspersed.

Hitchcock, A. S. A manual of farm grasses. 175 p., illus. Washington, D. C. 1921.

Leng, C. W. Catalogue of the Coleoptera of America, north of Mexico. 470 p. Mount Vernon, N. Y., John D. Sherman, Jr., 1920.
Catalogue of the North American Coleoptera described as fossils, by H. F. Wickham, p. 347-365.
Bibliography of taxonomic coleopterology to January 1, 1919, p. 367-444.

Ritchie, James, The influence of man on animal life in Scotland - a Study of faunal evolution. 550 p., illus., plates, maps. Cambridge, At the University Press, 1920.
Camp followers of commerce or animals, introduced unawares, p. 417-475.

Russell, H. L. Agricultural bacteriology for students in general agriculture, by H. L. Russell ... and E. G. Hastings, 368 p., illus., map. (The Century Agricultural Series.) New York, 1921.

Schmidt, C. C. Nature study and agriculture. 459 p., illus. Boston, 1920.
Books, pamphlets and periodicals for reference, p. 439-448.

Schoyen, T. H. i.e. Norway-Stat-Ent. Beretning om skadeinsekter og plantesykdommer i land og havebruket 1919. 52 p., illus Kristiania, Grondahl & Spes boktrykkeri, 1920.

Smith, J. W. Agricultural meterology, the effect of weather on crops. 304 p., illus. New York, Macmillan, 1920. (Rural Textbook Series.)
References at ends of chapters.

Stevens, F. L. Diseases of ecomonic plants, by F. L. Stevens ... and J.G. Hall... Rev. ed. 507 p., front. (port.) illus. New York, 1921.
Bibliography, pp. 467-490.

Thompson, A. G. G. Disinfestation in the German army in the war. Journal of the Royal Army Medical Corps, v.35, p. 228-232, London, 1920.

Wahl, Bruno, Die wichtigeren tierischen schädlinge unsere gebrauchlichsten gemüsearten. 70 p., illus., 1920. (Vienna k. k. Pflanzenschutz Station. Mitteilung 106.)

Weiss, H. B. The insect enemies of polypoid fungi. Amer. Naturalist, v. 54, p. 443-447. 1920.

Woolsey, T. S. Studies in French forestry, by Theodore S. Woolsey Jr... with two chapters by William B. Greeley. 550 p., illus., maps. New York, etc. 1920.
"French forest literature (1870-1912)", p. 448-469.

FRUIT INSECT INVESTIGATIONS

A. L. Quaintance, Entomologist in Charge

Loren B. Smith, associate State entomologist of Virginia, has been appointed agent in this office and assigned to duty at Riverton, N. J., in connection with the Japanese beetle project. His work will involve principally life-history studies of the insect.

R. W. Kelley, who was for a time engaged in extension work in deciduous fruit insect control and later in charge of the Insecticide and Fungicide Board laboratory at Vienna, Va., has been reemployed in the Bureau and assigned to duty at Riverton, N. J.,,to assist in field operations against the Japanese beetle.

Dr. A. L. Quaintance has returned from a trip to Georgia and Florida, where he visited several of the laboratories attached to this office.